

LLL	BBBBBBBBBBBBBB	RRRRRRRRRRRRR
LLL	BBBBBBBBBBBBBB	RRRRRRRRRRRRR
LLL	BBBBBBBBBBBBBB	RRRRRRRRRRRRR
LLL	BBB	RR
LLL	BBB	RRR
LLL	BBBBBBBBBBBBBB	RRRRRRRRRRRRR
LLL	BBBBBBBBBBBBBB	RRRRRRRRRRRRR
LLL	BBBBBBBBBBBBBB	RRRRRRRRRRRRR
LLL	BBB	RRR RRR
LLL	BBB	R RR
LLLLLLLLLLLLLL	BBBBBBBBBBBBBB	RRR RRR
LLLLLLLLLLLLLL	BBBBBBBBBBBBBB	RRR RRR
LLLLLLLLLLLLLL	BBBBBBBBBBBBBB	RRR RRR

TTTTTTTTT1 RRRRRRRR AAAAAAA NN NN SSSSSSS FFFFFFFF EEEEEEEE RRRRRRRR
TTTTTTTTT2 RRRRRRRR AAAAAAA NN NN SSSSSSS FFFFFFFF EEEEEEEE RRRRRRRR
TT RR RR AA AA NN NN SS FF EE RR RR
TT RR RR AA AA NN NN SS FF EE RR RR
TT RR RR AA AA NNNN NN SS FF EE RR RR
TT RR RR AA AA NNNN NN SS FF EE RR RR
TT RRRRRRRR AA AA NN NN SSSSSS FFFFFFFF EEEEEEEE RRRRRRRR
TT RRRRRRRR AA AA NN NN SSSSSS FFFFFFFF EEEEEEEE RRRRRRRR
TT RR RR AAAAAAAA NN NNNN SS FF EE RR RR
TT RR RR AAAAAAAA NN NNNN SS FF EE RR RR
TT RR RR AA AA NN NN SS FF EE RR RR
TT RR RR AA AA NN NN SS FF EE RR RR
TT RR RR AA AA NN NN SSSSSSSS FF EEEEEEEE RR RR
TT RR RR AA AA NN NN SSSSSSSS FF EEEEEEEE RR RR

The diagram illustrates a sequence of binary strings. It starts with a single 'L' at the top left, followed by 'LL', 'LLL', 'LLLL', 'LLLLL', 'LLLLLL', 'LLLLLLL', 'LLLLLLLL', and 'LLLLLLLLL' below it. To the right of a vertical line, there is a sequence of 'I's: 'I', 'II', 'III', 'IIII', 'III'. Further to the right, there is a sequence of 'S's: 'SS', 'SS', 'SS', 'SS', 'SSSSS', 'SSSSS', 'SSSSSS', 'SSSSSS', 'SS', 'SS', 'SS', 'SS', 'SSSSSSS', 'SSSSSSS'.

LIB
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0000 1
0000 2 .TITLE LBR TRANSFER transfer vectors for library access procedures
0000 3 .IDENT 'V04-000'
0000 4 :
0000 5 :*****
0000 6 :*
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0000 24 :*
0000 25 :*
0000 26 :*****
0000 27 :*
0000 28 :**
0000 29 :* FACILITY:
0000 30 :*
0000 31 :* Library access procedure set
0000 32 :*
0000 33 :* ABSTRACT:
0000 34 :*
0000 35 :* The library access procedure set provides a standard method
0000 36 :* for accessing libraries.
0000 37 :*
0000 38 :* ENVIRONMENT:
0000 39 :*
0000 40 :* Native mode, user mode
0000 41 :*
0000 42 :* AUTHOR:
0000 43 :*
0000 44 :* Tim Halvorsen, Benn Schreiber August 1979
0000 45 :*
0000 46 :* MODIFIED BY:
0000 47 :*
0000 48 :* V03-003 JWT0124 Jim Teague 01-Jun-1983
0000 49 :* Add entry point LBR\$FLUSH.
0000 50 :*
0000 51 :* V03-002 JWT0100 Jim Teague 03-Mar-1983
0000 52 :* Change psect name.
0000 53 :*
0000 54 :* V03-001 JWT0056 Jim Teague 22-Sep-1982
0000 55 :* Add lbr\$dcx_map.
0000 56 :*
0000 57 :--

00000000	59	.PSECT SSVECTOR_0_LBR, PIC, SHR, NOWRT, EXE	
0000	60		
0000	61	:	
0000	62	: Define macro to set up transfer vectors	
0000	63	:	
0000	64		
0000	65	.MACRO transfer entry_point	
0000	66	.TRANSFER entry_point	
0000	67	.MASK entry_point	
0000	68	BRW entry_point+2	
0000	69	.ENDM transfer	
0000	70		
0000	71	LBR_TRANSFER:	
0000	72	transfer LBR\$INI_CONTROL	
0005	73	transfer LBR\$OPEN	
000A	74	transfer LBR\$CLOSE	
000F	75	transfer LBR\$LOOKUP_KEY	
0014	76	transfer LBR\$INSERT_KEY	
0019	77	.BLKB 5	
001E	78	transfer LBR\$GET_RECORD	
0023	79	transfer LBR\$PUT_RECORD	
0028	80	transfer LBR\$PUT_END	
002D	81	transfer LBR\$DELETE_KEY	
0032	82	transfer LBR\$DELETE_DATA	
0037	83	transfer LBR\$SEARCH	
003C	84	transfer LBR\$GET_INDEX	
0041	85	transfer LBR\$SET_INDEX	
0046	86	transfer LBR\$SET_MODULE	
004B	87	transfer LBR\$GET_HEADER	
0050	88	transfer LBR\$FIND	
0055	89	.BLKB 5	
005A	90	transfer LBR\$GET_HELP	
005F	91	transfer LBR\$INSERT_TIME	
0064	92	transfer LBR\$REPLACE_KEY	
0069	93	transfer LBR\$PUT_HISTORY	
006E	94	transfer LBR\$GET_HISTORY	
0073	95	transfer LBR\$OUTPUT_HELP	
0078	96	transfer LBR\$SET_LOCATE	
007D	97	transfer LBR\$SET_MOVE	
0082	98	transfer LBR\$RET_RMSSTV	
0087	99	transfer LBR\$DCX_MAP	
008C	100	transfer LBR\$FLUSH	
0091	101		
0091	102	.BLKB 512-<.-LBR_TRANSFER>	
0200	103	.END	
			; Entry point mask
			; Go to main routine code
			; Initialize control
			; Open library
			; Close library
			; Lookup key
			; Insert key
			; removed lbr\$replace_mod
			; Read text record
			; Write module text record
			; Terminate writing module text
			; Delete key
			; Delete data
			; Search index for given RFA
			; Return contents of an index
			; Set current index
			; Return / update module header
			; Return library header
			; Position to read module
			; removed lbr\$dump
			; Return help text from HELP library
			; Set date/time into module header
			; Replace key in index and update mo
			; Put a library update history recor
			; Get library update history records
			; Prompting and library searching he
			; Set locate mode
			; Set move mode
			; Return the RMS status value
			; Conjure up a DCX map
			; Flush cache
			; Pad to full page

LBR\$CLOSE	*****	X
LBR\$DCX_MAP	*****	X
LBR\$DELETE_DATA	*****	X
LBR\$DELETE_KEY	*****	X
LBR\$FIND	*****	X
LBR\$FLUSH	*****	X
LBR\$GET_HEADER	*****	X
LBR\$GET_HELP	*****	X
LBR\$GET_HISTORY	*****	X
LBR\$GET_INDEX	*****	X
LBR\$GET_RECORD	*****	X
LBR\$INI_CONTROL	*****	X
LBR\$INSERT_KEY	*****	X
LBR\$INSERT_TIME	*****	X
LBR\$LOOKUP_KEY	*****	X
LBR\$OPEN	*****	X
LBR\$OUTPUT_HELP	*****	X
LBR\$PUT_END	*****	X
LBR\$PUT_HISTORY	*****	X
LBR\$PUT_RECORD	*****	X
LBR\$REPLACE_KEY	*****	X
LBR\$RET_RMSSTV	*****	X
LBR\$SEARCH	*****	X
LBR\$SET_INDEX	*****	X
LBR\$SET_LOCATE	*****	X
LBR\$SET_MODULE	*****	X
LBR\$SET_MOVE	*****	X
LBR_TRANSFER	00000000 R	X

+-----+
! Psect synopsis !

PSECT name	Allocation	PSECT No.	Attributes
. ABS .	00000000 (0.)	00 (0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
\$SVECTOR_0_LBR	00000200 (512.)	01 (1.)	PIC USR CON REL LCL SHR EXE RD NOWRT NOVEC BYTE

! Performance indicators !

Phase	Page faults	CPU Time	Elapsed Time
Initialization	33	00:00:00.11	00:00:00.44
Command processing	131	00:00:00.48	00:00:02.59
Pass 1	84	00:00:00.62	00:00:01.42
Symbol table sort	0	00:00:00.01	00:00:00.01
Pass 2	39	00:00:00.30	00:00:00.77
Symbol table output	4	00:00:00.04	00:00:00.04
Psect synopsis output	1	00:00:00.02	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	295	00:00:01.58	00:00:05.29

The working set limit was 750 pages.
2779 bytes (6 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 28 non-local and 0 local symbols.

103 source lines were read in Pass 1, producing 15 object records in Pass 2.
1 page of virtual memory was used to define 1 macro.

+-----+
! Macro library statistics !
+-----+

Macro library name

_S255\$DUA28:[SYSLIB]STARLET.MLB:2

Macros defined

0

0 GETS were required to define 0 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS\$:TRANSFER/OBJ=OBJ\$:TRANSFER MSRC\$:TRANSFER/UPDATE=(ENH\$:TRANSFER)

0200 AH-BT13A-SE
VAX/VMS V4.0

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TRANSFER
LIS

PUTCACHE
LIS

LIBRAR

LIBRARIAN
MAP

SUBS
LIS

PADLBR
LIS

COMPRESS
LIS

LTB
MDL

PREFIX
REQ

CROSS
LIS

FILEIO
LIS

EXTRACT
LIS

DELETE
LIS

DATABASE
LIS